II. GEOGRAPHICAL SETTING

The US 1 Deep River Bridge project area and the historic community of Ramsey's Mill or Lockville are located along the north side of the Deep River in southeastern Chatham County, North Carolina (Figures 1 and 2), near the modern town of Moncure. The Deep River marks the boundary between present-day Chatham and Lee County. Ramsey's Mill and Lockville area were historically a part of Chatham County. Lee County was not formed until 1907. Ramsey's Mill and Lockville are situated along a historic road of considerable antiquity. This road, not the same as modern U.S. Highway 1, historically connected Fayetteville on the Cape Fear with Pittsboro in Chatham County. From Pittsboro the road branched in several directions to the north and northwest leading to Hillsboro, the Haw Fields region of Alamance County, and the New Garden area of Guilford County. Today U.S. Highway 1 is a major north-south connector between Raleigh and Sanford.

The project area is situated near the eastern edge of the Piedmont physiographic region of the state. To the east are Sandhills and the Coastal Plain. The project area, though actually situated in the Piedmont, can be considered part of the fall zone marking the transition between the Piedmont and Coastal Plain physiographic provinces. Land in the vicinity of the project area is characterized by steep to gently rolling hills and Piedmont uplands. The area is dissected by numerous streams and several large rivers, including the Deep River. Lockville is situated on the Deep River approximately 9 miles upstream from its confluence with the Haw River. This confluence marks the beginning of the Cape Fear River.

Geologically, the project area is situated within the Triassic Basin geologic area (1985), or more specifically within the Sanford sub-basin (Olsen et al. 1991:142). This area is comprised of a complex assortment of geologic belts and rock formations. Rock exposures in the vicinity of the project area are mostly contained within the channel of the Deep River and consist of sandstone, siltstone and metasedimentary rock (Stimpson et al. 1989:60). The resistant rock in the river forms rapids or shallows which hinder navigation of the river. Surrounding the Lockville area, farther upstream along the Deep River, are substantial deposits of iron ore, coal, copper and other minerals. Iron ore and coal in particular have played an important role in the history of the region. Iron was mined as early as the 1770s, and several iron furnaces were constructed on the upper Deep River. The Willcox, Ore Hill-Sapona, and Endor furnaces operated from the 1770s through the 1880s. Coal was mined in the nineteenth and early twentieth centuries at Egypt and Cumnock (Hadley et al. 1976).

The area surrounding the immediate project area (Figure 2) is comprised of clayey or loamy soils developed from Triassic rocks (Daniels et al. 1984:40). Congaree silt loams are present in the lower areas and Mayodan and Wickham fine sandy and silt loams can be found on hills and ridges (Stimpson 1989). These are fairly deep soils which contain abundant rock and stone. The Piedmont landscape of Chatham County is characterized by large expanses of mixed pine and hardwood forests, and cleared agricultural fields. Corn, hay, small grains, and tobacco are all successfully grown in the region.